

AMENDMENTS TO THE CLAIMS:

The following listing of the claims replaces all prior versions, and listings, of claims in the Application.

Listing of Claims:

- 1-21. (Canceled)
22. (Previously presented) A packet voice communication system comprising:
- at least one processor capable of detecting an off-hook condition of a first telephony device;
 - the at least one processor capable of receiving, from the first telephony device, information identifying a second telephony device;
 - the at least one processor capable of determining whether a packet network address corresponding to the information identifying the second telephony device is available;
 - the at least one processor capable of prompting a user of the first telephony device for a packet network address corresponding to the second telephony device, if it is determined that a packet network address corresponding to the information identifying the second telephony device is not available; and
 - the at least one processor capable of establishing voice communication between the first telephony device and the second telephony device via a packet network, if the packet network address corresponding to the information identifying the second telephony device is available.
23. (Previously presented) The system of claim 22 wherein the first telephony device is a conventional telephone.
24. (Previously presented) The system of claim 22 wherein the second telephony device is a conventional telephone.

25. (Previously presented) The system of claim 22 further comprising:
the at least one processor capable of prompting a user of the first telephony device for information identifying a second telephony device.
26. (Previously presented) The system of claim 22 wherein prompting comprises:
transmitting an audio signal to the first telephony device.
27. (Previously presented) The system of claim 26 wherein the audio signal comprises at least one tone.
28. (Previously presented) The system of claim 26 wherein the audio signal comprises prerecorded speech.
29. (Previously presented) The system of claim 22 wherein the information identifying the second telephony device comprises a conventional telephone number.
30. (Previously presented) The system of claim 22 wherein determining comprises:
comparing the information identifying the second telephony device to at least one entry in a table, the at least one entry comprising information identifying a telephony device and a corresponding packet network address.
31. (Previously presented) The system of claim 22 wherein the packet network address comprises an Internet protocol (IP) address.
32. (Previously presented) The system of claim 22 wherein the packet network is the Internet.
33. (Previously presented) The system of claim 22 wherein establishing comprises:
sending a call setup request to the packet network address corresponding to the second telephony device;
determining whether an acceptance of the call setup request is received within a predetermined amount of time;
notifying the user of the first telephony device, if an acceptance of the call setup request is not received within the predetermined amount of time; and

transmitting digitized voice packets to the packet network address corresponding to the second telephony device, if an acceptance of the call setup request is received within the predetermined amount of time.

34. (Previously presented) The system of claim 33 wherein transmitting comprises:

converting voice signals from the first telephony device to produce digitized voice information; and

packetizing the digitized voice information to produce digitized voice packets.

35. (Previously presented) The system of claim 34 wherein the packetizing comprises:

determining whether voice activity of the user of the first telephony device is below a predetermined level;

changing the contents of packets sent to the packet network address corresponding to the second telephony device, if voice activity of the user of the first telephony device is determined to be below the predetermined level; and

refraining from changing the contents of packets sent to the packet network address corresponding to the second telephony device, if the voice activity is determined not to be below the predetermined level.

36. (Previously presented) The system of claim 22 wherein establishing comprises:

sending a call setup request to the packet network address corresponding to the second telephony device;

determining whether an acceptance of the call setup request is received within a predetermined amount of time;

notifying the user of the first telephony device, if an acceptance of the call setup request is not received within the predetermined amount of time; and

accepting digitized voice packets from the packet network address corresponding to the second telephony device, if an acceptance of the call setup request is received within the predetermined amount of time.

37. (Previously presented) The system of claim 36 wherein accepting comprises:
- depacketizing digitized voice packets from the packet network address corresponding to the second telephony device, to produce digitized voice information; and
 - converting the digitized voice information to voice signals for delivery to the first telephony device.
38. (Previously presented) The system of claim 37 wherein converting comprises:
- buffering digitized voice packets for an adjustable period of time in order to minimize gaps in the voice signals.
39. (Previously presented) The system of claim 38 wherein the adjustable period of time is based upon a propagation delay of the packet network.
40. (Previously presented) A computer-readable medium, having stored thereon a computer program having a plurality of code sections for communicatively coupling a first telephony device and a second telephony device via a packet network, the code sections executable by a processor for causing the processor to perform the operations comprising:
- receiving information identifying the second telephony device from the first telephony device;
 - determining whether a packet network address corresponding to the second telephony device is available;
 - sending a call setup request to the packet network address corresponding to the second telephony device, if it is determined that a packet network address corresponding to the second telephony device is available; and
 - establishing voice communication between the first telephony device and the second telephony device via the packet network, if an acceptance of the call setup request is received within a predetermined amount of time.
41. (Previously presented) The computer-readable medium of claim 40, wherein the operations further comprise:

notifying a user of the first telephony device, if an acceptance of the call setup request is not received within the predetermined amount of time.

42. (Previously presented) The computer-readable medium of claim 40, wherein the operations further comprise:

prompting a user of the first telephony device to enter a packet network address corresponding to the second telephony device, if it is determined that a packet network address corresponding to the second telephony device is not available.

43. (Previously presented) The computer-readable medium of claim 42 wherein prompting comprises:

transmitting an audio signal to the first telephony device.

44. (Previously presented) The computer-readable medium of claim 43 wherein the audio signal comprises at least one tone.

45. (Previously presented) The computer-readable medium of claim 43 wherein the audio signal comprises prerecorded speech.

46. (Previously presented) The computer-readable medium of claim 40 wherein the first telephony device is a conventional telephone.

47. (Previously presented) The computer-readable medium of claim 40 wherein the second telephony device is a conventional telephone.

48. (Previously presented) The computer-readable medium of claim 40 wherein the information identifying the second telephony device comprises a conventional telephone number.

49. (Previously presented) The computer-readable medium of claim 40 wherein determining comprises:

comparing the information identifying the second telephony device to at least one entry in a table, the at least one entry comprising information identifying a telephony device and a corresponding packet network address.

50. (Previously presented) The computer-readable medium of claim 40 wherein the packet network address comprises an Internet protocol (IP) address.

51. (Previously presented) The computer-readable medium of claim 40 wherein the packet network is the Internet.

52. (Previously presented) The computer-readable medium of claim 40 wherein the establishing comprises:

accepting voice packets comprising voice information from the second telephony device;

buffering the voice packets for a period of time based upon a propagation delay of the packet network; and

converting the voice packets to analog voice signals.

53. (Previously presented) The computer-readable medium of claim 40 wherein the establishing comprises:

converting analog voice signals from the first telephony device to voice packets for transmission to the packet network address corresponding to the second telephony device;

determining voice activity of a user of the first telephony device; and

reducing the volume of voice packets for transmission to the packet network address corresponding to the second telephony device, based upon the determined voice activity.

54. (Previously presented) A method for communicatively coupling a first telephony device and a second telephony device via a packet network, the method comprising:

receiving, from the first telephony device, information identifying the second telephony device;

determining whether a packet network address corresponding to the second telephony device is available;

sending, to the packet network address corresponding to the second telephony device, a call setup request, if it is determined that a packet network address corresponding to the second telephony device is available;

receiving, from the packet network address corresponding to the second telephony device, status information for the second telephony device; and

notifying a user of the first telephony device of a busy condition, if status information indicating a busy condition is received.

55. (Previously presented) The method of claim 54 further comprising:

prompting a user of the first telephony device for a packet network address corresponding to the second telephony device, if it is determined that a packet network address corresponding to the second telephony device is not available.

56. (Previously presented) The method of claim 55 wherein prompting comprises: transmitting at least one of a tone and prerecorded speech to the first telephony device.

57. (Previously presented) The method of claim 54 wherein the first telephony device is a conventional telephone.

58. (Previously presented) The method of claim 54 wherein the second telephony device is a conventional telephone.

59. (Previously presented) The method of claim 54 wherein the information identifying the second telephony device comprises at least one digit.

60. (Previously presented) The method of claim 54 wherein determining comprises: comparing the information identifying the second telephony device to at least one entry in a table, the at least one entry comprising information identifying a telephony device and a corresponding packet network address.

61. (Previously presented) The method of claim 54 wherein the packet network address comprises an Internet protocol (IP) address.
62. (Previously presented) The method of claim 54 wherein the packet network is the Internet.
63. (Previously presented) The method of claim 54 further comprising:
 establishing voice communication between the first telephony device and the second telephony device via the packet network, if status information indicating acceptance of the call setup request is received; and
 wherein establishing comprises:
 sending, to the packet network address corresponding to the second telephony device, voice packets comprising digitized voice information; and
 receiving, from the packet network address corresponding to the second telephony device, voice packets comprising digitized voice information.
64. (Previously presented) The method of claim 63 wherein sending and receiving comprise:
 communicating digitized voice information using modem signals.
65. (Previously presented) The method of claim 63 wherein establishing further comprises:
 buffering the received voice packets for a period of time based upon a propagation delay of the packet network; and
 converting the digitized voice information in the received voice packets to analog voice signals.
66. (Previously presented) The method of claim 63 wherein the establishing further comprises
 determining voice activity of a user of the first telephony device; and

adjusting the number of voice packets sent to the packet network address corresponding to the second telephony device, based upon the determined voice activity.

67. (Previously presented) The method of claim 54 wherein the notifying comprises: transmitting, to the first telephony device, at least one of a tone and prerecorded speech.

68. (Previously presented) At least one circuit for use in a telephony device, the at least one circuit operational to, at least:

send information to a communication system, where the sent information comprises information identifying a second telephony device;

receive information from the communication system, where the received information corresponds to the sent information; and

if the received information comprises first particular received information, cause prompting a user of the telephony device for a packet network address corresponding to the second telephony device.

69. (Previously presented) The at least one circuit of claim 68, where the first particular received information is indicative of the communication system not presently having a packet network address corresponding to the second telephony device.

70. (Previously presented) The at least one circuit of claim 69, where the first particular received information is indicative of the communication system not finding a table entry associating a packet network address with the second telephony device.

71. (Previously presented) The at least one circuit of claim 68, where the at least one circuit is further operational to, if the received information comprises second particular received information, establish voice communication with the second telephony device via the communication system.

72. (Previously presented) The at least one circuit of claim 71, where to establish voice communication with the second telephony device via the communication system, the at least one circuit is operational to cause the communication system to:

- send a call setup request to the packet network address corresponding to the second telephony device;

- determine whether an acceptance of the call setup request is received within a predetermined amount of time;

- notify the telephony device, if an acceptance of the call setup request is not received within the predetermined amount of time; and

- transmit digitized voice packets to the packet network address corresponding to the second telephony device, if an acceptance of the call setup request is received within the predetermined amount of time.

73. (Previously presented) The at least one circuit of claim 72, where the at least one circuit is operational to cause the communication system to transmit digitized voice packets by, at least in part, causing the communication system to:

- receive voice signals from the telephony device;

- convert the received voice signals to produce digitized voice information;

- and

- packetize the digitized voice information to produce digitized voice packets.

74. (Previously presented) The at least one circuit of claim 71, where to establish voice communication with the second telephony device via the communication system, the at least one circuit is operational to cause the communication system to:

- send a call setup request to the packet network address corresponding to the second telephony device;

- determine whether an acceptance of the call setup request is received within a predetermined amount of time;

- notify the telephony device, if an acceptance of the call setup request is not received within the predetermined amount of time; and

accept digitized voice packets from the packet network address corresponding to the second telephony device, if an acceptance of the call setup request is received within the predetermined amount of time.

75. (Previously presented) The at least one circuit of claim 74, where the at least one circuit is operational to cause the communication system to accept digitized voice packets by, at least in part, causing the communication system to:

depacketize digitized voice packets from the packet network address corresponding to the second telephony device, to produce digitized voice information; and

convert the digitized voice information to voice signals for delivery to the telephony device.

76. (Previously presented) The at least one circuit of claim 68, where the telephony device is a conventional telephone.

77. (Previously presented) The at least one circuit of claim 68, where the second telephony device is a conventional telephone.

78. (Previously presented) The at least one circuit of claim 68, where the at least one circuit is operational to cause prompting the user of the telephony device for information identifying the second telephony device.

79. (Previously presented) The at least one circuit of claim 68, where the at least one circuit is operational to cause prompting the user by, at least in part:

receiving an audio signal from the communication network; and

causing presentation of audio information corresponding to the audio signal to the user.

80. (Previously presented) The at least one circuit of claim 68, where the information identifying the second telephony device comprises a conventional telephone number.

81. (Previously presented) The at least one circuit of claim 68, where the packet network address comprises an Internet Protocol (IP) address.

82. (Previously presented) The at least one circuit of claim 68, where the packet network is the Internet.

83. (Previously presented) A method for operating at least one circuit for use in a telephony device, the method comprising:

- sending information to a communication system, where the sent information comprises information identifying a second telephony device;
- receiving information from the communication system, where the received information corresponds to the sent information; and
- if the received information comprises first particular received information, causing prompting a user of the telephony device for a packet network address corresponding to the second telephony device.

84. (Previously presented) The method of claim 83, where the first particular received information is indicative of the communication system not presently having a packet network address corresponding to the second telephony device.

85. (Previously presented) The method of claim 84, where the first particular received information is indicative of the communication system not finding a table entry associating a packet network address with the second telephony device.

86. (Previously presented) The method of claim 83, further comprising, if the received information comprises a second particular received information, establishing voice communication with the second telephony device via the communication system.

87. (Previously presented) The method of claim 86, wherein establishing voice communication with the second telephony device via the communication system comprises causing the communication system to, at least:

- send a call setup request to the packet network address corresponding to the second telephony device;
- determine whether an acceptance of the call setup request is received within a predetermined amount of time;

notify the telephony device, if an acceptance of the call setup request is not received within the predetermined amount of time; and

transmit digitized voice packets to the packet network address corresponding to the second telephony device, if an acceptance of the call setup request is received within the predetermined amount of time.

88. (Previously presented) The method of claim 87, wherein causing the communication system to transmit digitized voice packets comprises causing the communication system to, at least:

receive voice signals from the telephony device;

convert the received voice signals to produce digitized voice information;

and

packetize the digitized voice information to produce digitized voice packets.

89. (Previously presented) The method of claim 86, wherein establishing voice communication with the second telephony device via the communication system comprises causing the communication system to, at least:

send a call setup request to the packet network address corresponding to the second telephony device;

determine whether an acceptance of the call setup request is received within a predetermined amount of time;

notify the telephony device, if an acceptance of the call setup request is not received within the predetermined amount of time; and

accept digitized voice packets from the packet network address corresponding to the second telephony device, if an acceptance of the call setup request is received within the predetermined amount of time.

90. (Previously presented) The method of claim 89, wherein causing the communication system to accept digitized voice packets comprises causing the communication system to, at least:

depacketize digitized voice packets from the packet network address corresponding to the second telephony device, to produce digitized voice information; and

convert the digitized voice information to voice signals for delivery to the telephony device.

91. (Previously presented) The method of claim 83, where the telephony device is a conventional telephone.

92. (Previously presented) The method of claim 83, where the second telephony device is a conventional telephone.

93. (Previously presented) The method of claim 83, further comprising causing prompting the user of the telephony device for information identifying the second telephony device.

94. (Previously presented) The method of claim 83, wherein causing prompting a user comprises:

receiving an audio signal from the communication network; and
causing presentation of audio information corresponding to the audio signal to the user.

95. (Previously presented) The method of claim 83, where the information identifying the second telephony device comprises a conventional telephone number.

96. (Previously presented) The method of claim 83, where the packet network address comprises an Internet Protocol (IP) address.

97. (Previously presented) The method of claim 83, where the packet network is the Internet.

98. (Previously presented) At least one circuit for use in a telephony device, the at least one circuit operational to, at least:

send information to a communication system, where the sent information comprises:

information identifying a second telephony device; and
information to cause the communication system to, at least, send a call setup request to a packet network address corresponding to the second telephony device, if the packet network address is available to the communication system.

99. (Previously presented) The at least one circuit of claim 98, where the sent information comprises information to cause the communication system to, at least, receive status information for the second telephony device from the packet network address corresponding to the second telephony device.

100. (Previously presented) The at least one circuit of claim 99, where the at least one circuit is operational to, at least, establish voice communication with the second telephony device via the communication system, if status information indicating acceptance of the call setup request is received by at least the communication system.

101. (Previously presented) The at least one circuit of claim 99, where the sent information comprises information to cause the communication system to establish voice communication between the telephony device and the second telephony device via the packet network, if status information indicating acceptance of the call setup request is received, where the establishing comprises:

sending, to the packet network address corresponding to the second telephony device, voice packets comprising digitized voice information; and
receiving, from the packet network address corresponding to the second telephony device, voice packets comprising digitized voice information.

102. (Previously presented) The at least one circuit of claim 101, where the sending and the receiving comprise communicating digitized voice information using modem signals.

103. (Previously presented) The at least one circuit of claim 101, where the establishing comprises:

- buffering the received voice packets for a period of time based upon a propagation delay of the packet network; and
- converting the digitized voice information in the received voice packets to analog voice signals.

104. (Previously presented) The at least one circuit of claim 101, where the establishing further comprises:

- determining voice activity of a user of the telephony device; and
- adjusting the number of voice packets sent to the packet network address corresponding to the second telephony device, based upon the determined voice activity.

105. (Previously presented) The at least one circuit of claim 98, where the at least one circuit is operational to, at least, cause prompting a user of the telephony device for a packet network address corresponding to the second telephony device, if it is determined that a packet network address corresponding to the second telephony device is not available.

106. (Previously presented) The at least one circuit of claim 98, where the telephony device is a conventional telephone.

107. (Previously presented) The at least one circuit of claim 98, where the second telephony device is a conventional telephone.

108. (Previously presented) The at least one circuit of claim 98, where the information identifying the second telephony device comprises a conventional telephone number.

109. (Previously presented) The at least one circuit of claim 98, where the sent information comprises information to cause the communication system to determine if the packet network address is available to the communication system by, at least in part, comparing the information identifying the second telephony device to at least one

entry in a table, the at least one entry comprising information identifying a telephony device and a corresponding packet network address.

110. (Previously presented) The at least one circuit of claim 98, where the packet network address comprises an Internet protocol (IP) address.

111. (Previously presented) The at least one circuit of claim 98, where the packet network is the Internet.

112. (Previously presented) The at least one circuit of claim 98, where the sent information comprises information to further cause the communication system to notify the telephony device of a busy condition, if the received status information indicates a busy condition.

113. (Previously presented) A method for operating at least one circuit for use in a telephony device, the method comprising:

- sending information to a communication system, where the sent information comprises:

- information identifying a second telephony device; and

- information to cause the communication system to, at least, send a call setup request to a packet network address corresponding to the second telephony device, if the packet network address is available to the communication system.

114. (Previously presented) The method of claim 113, where the sent information comprises information to cause the communication system to, at least, receive status information for the second telephony device from the packet network address corresponding to the second telephony device.

115. (Previously presented) The method of claim 114, further comprising establishing voice communication with the second telephony device via the communication system, if status information indicating acceptance of the call setup request is received by at least the communication system.

116. (Previously presented) The method of claim 114, where the sent information comprises information to cause the communication system to establish voice communication between the telephony device and the second telephony device via the packet network, if status information indicating acceptance of the call setup request is received, where the establishing comprises:

- sending, to the packet network address corresponding to the second telephony device, voice packets comprising digitized voice information; and
- receiving, from the packet network address corresponding to the second telephony device, voice packets comprising digitized voice information.

117. (Previously presented) The method of claim 116, where the sending and the receiving comprise communicating digitized voice information using modem signals.

118. (Previously presented) The method of claim 116, where the establishing comprises:

- buffering the received voice packets for a period of time based upon propagation delay of the packet network; and
- converting the digitized voice information in the received voice packets to analog voice signals.

119. (Previously presented) The method of claim 116, where the establishing comprises:

- determining voice activity of a user of the telephony device; and
- adjusting the number of voice packets sent to the packet network address corresponding to the second telephony device, based upon the determined voice activity.

120. (Previously presented) The method of claim 113, further comprising causing prompting a user of the telephony device for a packet network address corresponding to the second telephony device, if it is determined that a packet network address corresponding to the second telephony device is not available.

121. (Previously presented) The method of claim 113, where the telephony device is a conventional telephone.

122. (Previously presented) The method of claim 113, where the second telephony device is a conventional telephone.

123. (Previously presented) The method of claim 113, where the information identifying the second telephony device comprises a conventional telephone number.

124. (Previously presented) The method of claim 113, where the sent information comprises information to cause the communication system to determine if the packet network address is available to the communication system by, at least in part, comparing the information identifying the second telephony device to at least one entry in a table, the at least one entry comprising information identifying a telephony device and a corresponding packet network address.

125. (Previously presented) The method of claim 113, where the packet network address comprises an Internet protocol (IP) address.

126. (Previously presented) The method of claim 113, where the packet network is the Internet.

127. (Previously presented) The method of claim 113, where the sent information comprises information to further cause the communication system to notify the telephony device of a busy condition, if the received status information indicates a busy condition.